

REMARKS

Before entry of this Amendment, claims 1-25, 45, 47, 49-51, and 53-62 were pending in the application.

Claims 2, 10-16, and 25 are requested to be cancelled.

Claims 1, 3-7, 9, 21, 43, 45, 49, 50, 53, 60, and 62 are currently being amended.

Support for amended claims 1, 3-7, 9, 11-16, 19, 21, 43, 45, 49, 50, 53, 60, and 62 may be found in the claims and specification as originally filed.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 3-9, 11-24, 45, 47, 49-51, and 53-62 are now pending in this application.

Election/Restriction

In the Office Action dated February 25, 2004, the Examiner stated that "claims 20-25 are drawn to an invention nonelected with traverse in Paper filed July 25, 2003." Applicants note that claims 20-25 were previously amended to depend directly or indirectly from elected claim 1, and that claim 1 and claims 20-25 all recite related compositions. Applicants request that the Examiner reconsider having withdrawn claims 20-25 from consideration.

The Examiner also stated that "[c]laims 10-16, 57, 59 and 61 are withdrawn from consideration...being drawn to a nonelected species, there being no allowable generic or linking claim." Applicants have requested that claims 10-16 be cancelled. Claims 57, 59, and 61, which depend from amended claim 53, remain pending in this application. If the Examiner finds that amended claim 53 is allowable, Applicants request that the Examiner consider the patentability of dependent claims 57, 59, and 61.

Claim Rejections – 35 U.S.C. § 112, first paragraph

In the Office Action, the Examiner rejected claim 60 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement for reciting “trimethylamine.” Applicants have amended claim 60 to recite “triethylamine” and request that the Examiner reconsider the rejection.

Claim Rejections – 35 U.S.C. § 112, second paragraph

In the Office Action, the Examiner rejected claims 2-9, 45, 47, 49-51, 53-56, 58, 60 and 62 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Examiner rejected claim 2, stating that “it is unclear if or how the language ‘wherein one or more of R, R₁, R₂ and R₃ are substituted with an amino group’ limits the first and second amines.” Applicants have cancelled claim 2 and amended claim 1 to incorporate portions of claim 2. However, amended claim 1 does not recite “wherein one or more of R, R₁, R₂ and R₃ are substituted with an amino group. Rather, amended claim 1 recites “and at least one of the selected amines includes at least two amino groups.” As such, Applicants respectfully contend that one skilled in the art would recognize the metes and bounds of amended claim 1 and request that the Examiner reconsider the rejection.

The Examiner rejected claim 4 and 60, noting that “the base claims, as recited, do not appear to have antecedent basis for a monoamine.” Claim 4 recites “wherein the first amine is tetradecylamine,” (*i.e.*, an amine having the formula CH₃-(CH₂)₁₃-NH₂). Claim 4 depends from amended claim 1 which recites “a first amine selected from the group consisting of RR₁NH, RNH₂ and mixtures thereof.” Further, claim 1 recites “R, R₁, R₂ and R₃ are the same or different and each contain between about 1 and 50 carbon atoms and are optionally substituted with heteroatoms oxygen, nitrogen, sulfur, phosphorus, or combinations thereof.” As such, Applicants respectfully contend that amended claim 1 provides antecedent basis for tetradecylamine, wherein the first amine may be RNH₂ where R contains 14 carbon atoms.

Amended claim 60 recites: “The crosslinked polymeric material of claim 53, wherein the one or more crosslinking agents comprise a phosphine formed from the reaction of tetrakis(hydroxymethyl)phosphonium chloride and triethylamine.” As such, amended claim 60 does not recite a monoamine and Applicants assume that the rejection is directed to claim 62.

Amended claim 62 recites: “The polyamide material of claim 45, wherein the selected amines comprise tetradecylamine and pentaethylenehexamine.” However, Applicants note that amended claim 45 recites “one or more amines selected from polyalkylene polyamines and *amines having the formula R-NH₂* to form an intermediate reaction product, *wherein R contains between 1 and 50 carbon atoms* and is optionally substituted with heteroatoms oxygen, nitrogen, sulfur, phosphorus, and combinations thereof.” (Emphasis added.) As such, Applicants respectfully contend that amended claim 45 provides antecedent basis for tetradecylamine as recited in amended claim 62 and request that the Examiner reconsider the rejection.

The Examiner also rejected claims 45 and 47, stating that “it is unclear if or how the language ‘wherein at least one amine has an R group substituted with an amino group’ limits the first and second amines.” Applicants note that amended claims 45 and 47 do not recite a “first amine” and “second amine.” Rather, amended claims 45 and 47 recite:

one or more amines selected from polyalkylene polyamines and amines having the formula R-NH₂ to form an intermediate reaction product, wherein the R group contains between 1 and 50 carbon atoms and is optionally substituted with heteroatoms oxygen, nitrogen, sulfur, phosphorus, and combinations thereof; wherein at least one of the selected amines includes at least two amino groups...

As such, the language “at least one of the selected amines” is limited by the language “includes at least two amino groups” and refers to amine compounds which include two or more amino groups (as opposed to an “R group” which is itself substituted with an amino group.) Applicants respectfully contend that one skilled in the art would recognize the metes and bounds of amended claim 1 and request that the Examiner reconsider the rejection.

The Examiner also rejected claim 53, stating that “the language ‘wherein one or more or the selected amines is substituted with an amino group’ is indefinite because it is unclear how said ‘amino group’ limits the R-NH₂ and the polyalkylene polyamines which already contain an amino group.” Applicants have amended claim 53 to recite “wherein one or more of the selected amines includes at least two amino groups.” As such, Applicants respectfully contend that one skilled in the art would recognize the metes and bounds of amended claim 53 and request that the Examiner reconsider the rejection.

Claim Rejections – 35 U.S.C. § 102/103

The Examiner rejected claim 1 under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. 6,217,780 (Denkewicz, Jr. *et al.*) Further, the Examiner rejected claim 1 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over JP abstract 11222402. Applicants request that the Examiner reconsider the rejection in view of the foregoing amendments.

Claim 1 has been amended to incorporate portions of the limitations from claim 2, which was not rejected under 35 U.S.C. § 102/103. As amended, claim 1 recites a polymer synthesized by: “(i) reacting a monomer selected from the group consisting of unsaturated carboxylic acids, esters of unsaturated carboxylic acids, anhydrides of unsaturated carboxylic acids, and mixtures thereof....” In contrast, neither Denkewicz, Jr. *et al.* nor JP 11222402 teach or suggest a polymer formed by reacting unsaturated carboxylic acids, esters of unsaturated carboxylic acids, or anhydrides of unsaturated carboxylic acids with an amine. As such, Applicants respectfully contend that claim 1 is not anticipated by or obvious over Denkewicz, Jr. *et al.* or JP11222402 and request that the Examiner reconsider the rejection.

Double Patenting

In the Office Action, the Examiner provisionally rejected claims 1-9, 17-19, 45, 47, 49-51, 53-56, 58, 60 and 62 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/068,054, (*i.e.*, “the ‘054 Application”). Applicants traverse the rejection.

An “obviousness-type” double patenting rejection is proper only where a “claim in the application define[s] an invention that is merely an obvious variation of an invention claimed in the patent.” (See MPEP § 804 B.1. (emphasis added)). All the claims in the instant application recite “an antimicrobial agent selected from the group consisting of metals, metal alloys, metal salts, metal complexes and mixtures thereof.” In contrast, all the claims of the ‘054 Application recite “an antimicrobial agent selected from quaternary ammonium compounds, gentian violet compounds, substituted or unsubstituted phenols, biguanide compounds, iodine compounds, and mixtures thereof,” (*i.e.*, antimicrobial agents all of which include an organic component). Applicants respectfully contend that it would not be obvious to use an antimicrobial agent “selected from the group consisting of metals, metal alloys, metal salts, metal complexes and mixtures thereof,” in view of the specific organic-based antimicrobial agents recited in the claims of the ‘054 Application. As such, Applicants request that the Examiner reconsider the rejection.

Moreover, because the rejection is provisional, Applicants are not required to address the rejection at this time. Applicants note that the ‘054 Application has been issued a first, non-final Office Action and that the claims of the ‘054 Application are not currently in condition in condition for allowance. However, if the claims of the ‘054 Application should be placed in condition for allowance before the claims of the instant application, Applicant would contact the Examiner to address the “obviousness-type” double patenting rejection, (if the Examiner should not find Applicants’ above-stated argument persuasive and maintain the “obviousness-type” double patenting rejection.)



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Applicants believe that the present application is now in condition for allowance.

Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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